

FIELD TRIPS OF THE CLUB

TRIP OF JUNE 20-21 TO HANGING HILLS, MERIDEN, CONN.

Meriden Mountain, the highest point of the range called the Hanging Hills, with an altitude of 1,007 feet, the highest trap dike in the State of Connecticut, was the principal objective of the week end trip of June 20-21. The geology of the region was explained, from this viewpoint, by Mr Lougee, of the Department of Geology, Columbia University, who has been making a study of the region. He said that the Hanging Hills are part of a basalt sill injected into the Triassic formations of eastern North America. A series of cross faults in this rock allowed greater weathering in such faults where the rock was crushed, and the Hanging Hills are the remaining harder portions.

The party spent the night in the home of the writer's father, built in 1766, and the first Congregationalist parsonage in the Town of Southington. Nearby is a rounded hill, a beautiful example of a kame, or water laid deposit of glacial debris, near the edge of the continental ice sheet of the Ice Age.

In a nearby pond, several amphibians were collected, including the somewhat rare Spadefoot toad *Scaphiopus Holbrookii*.

A local botanist, Mr Howard Whitney, joined the party and was very helpful in identifying the flora. About 125 species were checked, some of the most noteworthy being:

Menispermum, Moonseed; *Caulophyllum thalictroides*, Blue Cohosh; *Corydalis glauca*; *Polygala polygama*; *Geum album*; *Fragaria vesca*, Wood Strawberry; *Cornus circinata*, Round Leaved Dogwood; *Sambucus racemosa*, Red Berried Elder; *Campanula rotundifolia*, Harebell; *Arctostaphylos uva-ursi*, Bearberry, growing in large mats on the summit of Meriden Mountain; *Gentiana crinita*, Fringed Gentian; *Lilium philadelphicum*, Wood Lily.

Photographs were made of lichens, including a beautiful colony of *Stereocaulon paschale*, with both the normal and the dense form, *conglomeratum*, on a shelf on the top of the cliffs on the west side of the mountain, also of the orchids, *Calopogon pulchellus*, Grass Pink and *Pogonia ophioglossoides*, Snake's Mouth.

LOUIS W. ANDERSON

TRIP OF JULY 12 TO SUREBRIDGE SWAMP, INTERSTATE PARK

Surebridge Swamp, a high, cold, forested swamp, at an altitude of about 1,000 feet, in the western part of the Harriman Section of the Palisades Interstate Park, was visited on July 12. A new station was found in the depths of the swamp, unusually penetrable owing to dry weather, for the Virginia Chain fern, *Woodwardia virginica*. The red fruited soresiate lichen, *Cladonia incrassata*, not common in the Hudson Highlands, was rather extensive here about bases of red maple trees. On the "Lichen Trail," climbing the ledges of Hogencamp Mountain, the only really ample station in the Hudson Highlands, of the Iceland Moss lichen, *Cetraria islandica*, was noted, other lichens on the glaciated ledges and boulders lying on them were *Stereocaulon paschale*, *Rinodina oreina*, and *Lecanoras*. *Cladonia rangiferina*, the Reindeer Moss, *C. sylvatica*, *C. chlorophaea*, and *C. strepsilis* occur along the edges of the open ledges.

A sally off the trails into a gully leading off the west side of Hogencamp Mountain, disclosed some very clear slickensides, another evidence of the great over-thrusting which occurred on the west side of the Highlands of the Hudson in the Taconic Revolution. Swamps traversed on the way out to the Crooked Road past Island Pond, disclosed many robust mosses, especially large *Mniums*, and the hepatic, *Bazzania trilobata*, was common.

RAYMOND H. TORREY

TRIP OF AUGUST 9 TO GARDINER'S ISLAND

The train and boat trip to Gardiner's Island, at the east end of Long Island, one of the most interesting events of the field schedule, turned out this year to be a veritable armada, with two boats required to carry the 48 members and guests from other groups. The trip was made possible by the kindness of Mr. Clarence H. MacKay, lessee of the island.

When the boats landed, after the eight mile sail across Gardiner's Bay, the party broke up into groups interested in plants, birds, or geology. All saw the old Gardiner burying ground, with stones dating from the middle of the seventeenth century, all but the very newest decorated with young to very ancient colonies of the lichen, *Rinodina oreina*, derived, evidently, from a red granite boulder transported from somewhere

in New England by the ice sheets, and covered almost completely with this lichen.

The botanical party, some of the members of which had examined the north side of the Island last year, tried the south side this time. They followed the woods along the west side of Tobacco Lot Pond, rousing the angry cries of ospreys nesting in the trees. A blooming plant of *Habenaria psycodes* was an interesting find. A planted area of Catalpa has done well with the trees uniformly large and well grown. Toward the south end, the moraine hills are open, with short grass, and a good deal of the Golden Aster, *Chrysopsis*. The shallow borders of Tobacco Lot Pond contain some extraordinarily tall Cat-tails, *Typha latifolia*. The ospreys for which the island is famous, were more numerous than ever, nesting everywhere in trees, and on boulders along the shores or in the water. One member offered an observation which was new to this writer, that ospreys were early discoverers of the principle of stream-lining, now the rage in automobiles and railroad trains. He asked us to note then when an osprey dived, caught a fish and rose to carry it to its nest, it always held the fish head first, so that it would give the least resistance. And so they did.

One really does not have time to do justice to the flora of Gardiner's Island, in the five hours we had ashore. The woody, swampy areas are probably rich in slime moulds, for one thing, as Robert Hagelstein found in his first visit there last year. The general flora is about like that of eastern Long Island. The oaks, maples and sourgums in the woods on the south end of the island, are fine specimens, but not quite as large and impressive as those at the north end, which we saw last year. To get the most out of a short visit, the north side, with the big oaks, and the colored clay cliffs, is most interesting, and the terminal sand spit at the northern extremity, with its scattered red cedars, looks worth intensive study on another expedition.

RAYMOND H. TORREY

CATSKILLS TRIP, SEPTEMBER 12-14

About a dozen members of the club greatly enjoyed the week end trip under the direction of Mrs. Inez Haring, of Woodland, Ulster County, Sept. 12-14 in the southeastern Catskills.

A novelty was the trail over Giant Ledge and Panther Mountain, only recently finished by the State Conservation Department, with C.C.C. labor, affording interesting plants of the balsam fir-spruce forest association above 3200 feet, and wide views in every direction.

On Saturday the party motored to Watson's Hollow, west of the Ashokan Reservoir, and, although caught in a shower, found many flowering plants, ferns and mosses. An unusual moss found by Mrs. Haring was *Anomodon apiculatus*. On Sunday, the enlarged party climbed the yellow-blazed state trail from the camp ground at the head of Woodland Creek, up to the new trail, which was followed north to Giant Ledge. Views of the old slide, of 1820, with three new slides, made in the flood of 1933, on the north face of Slide Mountain, 4204 feet, highest of the Catskills, were clearly seen from the southern ledges. The new trail passes along the brink of the 200-foot cliff on the east side of Giant Ledge, for half a mile. It then descends into a notch and climbs about 800 feet to the highest summit of Panther Mountain, at 3750 feet.

On these mountain tops are many vertical ledges, bearing large, dense colonies of the Rock Tripe Lichen, *Umbilicaria Muhlenbergii*, of extraordinarily large size, specimens a foot in widest diameter being common and the largest measuring fourteen inches. Heavily fruiting specimens of the Mountain Ash, *Pyrus americana*, made a brilliant display with their bright red berries. Several asters and goldenrods made up the greater part of the flowering plants. Fleshy fungi, including fine specimens of *Hydnum caput-ursi*, were numerous after a wet spell. *Parmelia Cladonia*, the lacy tree lichen first reported in the club range on Panther Mountain, thirty years ago, by Mrs. Carolyn Harris, was common on dead and on some living firs and spruces, and it is now known to occur on most high Catskill summits. The most common *Cladoniae* were *gracilis*, *squamosa*, and *coniocreae*, although on the northernmost high summit of Panther, an open ledge bore colonies of *C. rangiferina*. *Cetraria atlantica*, *pinastri* and *oakesiana* were noted.

Some of the party followed the new trail all the way through to Fox Hollow and State Route 28, in the Esopus Valley. This would make an interesting trip in late spring, when more flowering plants would be in bloom. In open pastures in Fox Hollow,

the Basil, *Satureja vulgaris*, a characteristic late summer plant of such situations in the Catskills was very common.

FARIDA WILEY

CAPE MAY COUNTY NEW JERSEY, OCTOBER 3-4

The week end trip in Cape May County, N.J., returning through the Pine Barrens with stops at various points, on Oct. 3 and 4 proved unusually interesting. We were fortunate in having as a guide Mr. Otway H. Brown, of Cape May, a local expert on the flora, particularly so on the grasses, sedges and rushes, which were numerous. Dr. J. M. Small, Assistant Professor of Botany at the New Jersey College for Women, who was in the party, with Mrs. Small and three of his students, and who is thoroughly acquainted with the South Jersey flora and with stations for rarer species, also made the trip highly instructive.

To the writer, the high light of the trip was the finding of an ample and secure station for *Cladonia leporina*, a beautiful branching member of this genus, resembling *C. Boryi* or some of the sub-genus *Cladina* in its densely branching structure, but with scarlet apothecia. This station was probably known to the late Dr. J. H. Eckfeldt, of the Philadelphia Academy of Sciences and Philadelphia Botanical Club, who collected in Cape May County, 40 years ago, with Mr. Brown, who recalled Dr. Eckfeldt's finding of many lichens. But as no specimen was deposited in any herbarium, when Dr. Alexander W. Evans, of Yale University, leading American worker on *Cladoniae*, compiled his paper on "The *Cladoniae* of New Jersey," which appeared in the July-Aug. 1935 issue of *Torreyia*, he listed the record of *C. leporina* as inconclusive, in the absence of available material, although he suggested it might be expected in New Jersey.

George F. Dillman, a member of the Torrey Botanical Club, found this station, which is in the Witmer Stone Bird Sanctuary, at Cape May Point, on Sept. 6, and sent me a box of it, not knowing it but suspecting it to be unusual. I recognized it, from material I had received from Arkansas and North Carolina, determined by Dr. Evans, and sent it to him. He was much pleased to have it definitely restored to the *Cladoniae* of New Jersey.

The station is on the west side of a swamp, north of the railroad tracks which run to a sand sorting plant on the edge of Delaware Bay, at Cape May Point. It covers several acres, one open area of about two acres of sandy soil being almost exclusively carpeted by it, and other colonies are scattered in the sandy woods nearby. It may be the most northern station for this *Cladonia*, which is recorded mostly from farther south by Tuckerman.

Two other *Cladoniae* of southern range, according to published records, but which have been found in recent years, in South Jersey, were also found by the writer on this trip. Another station for *Cladonia santensis*, found for the first time in New Jersey in Ocean County, in 1934, and since then in Atlantic, Cumberland and Cape May Counties, was discovered at Quaker Bridge, on Batsto River, south east of Atsion, Burlington County. An ample station for *Cladonia floridana*, until recent years not reported north of Maryland, but now known from New Jersey and Long Island, was found at Hampton Gate, Burlington County.

Among flowering plants, notable species were the great Pine Barren Gentian, *Gentiana Porphyrio*, which Dr. Small showed us near Atsion station on the Central Railroad of New Jersey, and *Lygodium palmatum*, the Climbing Fern, in ample quantity along at Hampton Gate.

At Cumberland Furnace, in Cape May County, a plant new to us was *Opuntia Rafinesquii*, differing from *O. vulgaris*, of northern New Jersey, Hudson Valley and Long Island stations, in bearing, besides the clusters of small bristles, stout, longer ones, up to an inch and a half in length, on the tips of the fleshy stem sections. *Polygala lutea*, the Orange Milkwort, still in bloom, in places where it had been mowed and sprung up again, was strikingly attractive. *Proserpinaca pectinata*, in ditches near Atsion, was another novelty to some of us. It occurred with the strikingly three ranked sedge, *Dulichium arundinaceum*. A handsome grass named for us by Mr. Brown was *Glyceria obtusa*. The sedge *Scirpus Eriophorum*, with its seeding heads rusty brown, was common in wet spots. Persimmon trees were heavy with fruit in the wet woods back of Town Bank, north of Cape May Point. This dune strip, covered with red cedars, is an interesting spot. *Polygonella articulata* was in full

bloom, along beaches, in dry fields, and along railroad tracks, a dainty plant, the flowers very pretty under a hand lens.

RAYMOND H. TORREY

PROCEEDINGS OF THE CLUB

MEETING OF APRIL 15, 1936

The meeting was called to order at 3:30 P.M. at the New York Botanical Garden, by the president. Forty-eight members were present. The minutes of the meetings of March 18 and April 7 were read and adopted.

The secretary presented a letter from the Smithsonian Institution, Washington, D. C., with regard to some of the Club's publications which had been sent them for use in preparing the International Catalogue of Scientific Literature, and it was moved by Dr. Barnhart and seconded by Professor Hazen that the secretary request the return of such publications so soon as possible.

Another letter from the Ecological Society of America was read by the secretary, calling the attention of the Club to a rider on the Department of Interior bill calling for an irrigation tunnel under Rocky Mountain National Park and the consequences of such a tunnel on the water supply of that region. It was moved, seconded, and unanimously passed that the secretary find out whether the bill had already been passed, and if not to communicate to our congressman the Club's disapproval of such a project.

The president brought up the question of disposing of our surplus index cards at a reduced rate to various institutions which had applied for them. The question was discussed pro and con for some time and finally referred to a meeting of the Council.

The secretary, in relation to the letter from the Smithsonian Institution, raised the question as to a change in our committee on exchanges and the appointment of an additional member who is more active in the affairs of the Club. This matter was also referred to the coming meeting of the Council.

The scientific part of the meeting consisted of two addresses—one by Professor E. W. Sinnott, of Barnard College, Columbia University, on "A Developmental Analysis of Four